

IN THE CLAIMS:

1-17. (Cancelled).

18. (Currently Amended). A self-propelled robotic pool cleaner comprising:

a. a pool cleaner housing having a first and second pair of dual brushes co-axially mounted at opposite ends of the housing for rotation on axles that are transverse to the direction of movement, the first pair of brushes being mounted on one side and the second pair of brushes mounted on the opposite side of the cleaner, the pool cleaner being propelled by the rotation of the brushes;

b. ~~at least one~~ a single reversible drive motor operatively connected for synchronously driving the first pair of brushes;

c. a controller for controlling the direction of rotation of the ~~at least one~~ single drive motor and thereby the directional movement of the pool cleaner; and

d. a rotational delay clutch assembly that is co-axially positioned between each pair of the first and second brushes, whereby a reversal in the direction of rotation of the first pair of motor-driven brushes temporarily disengages the clutch from driving the second pair of brushes thereby pivoting the pool cleaner through a predetermined angular change in direction before the clutch reengages with the second pair of brushes thereby initiating the synchronous rotation of the second pair of brushes, whereby the pool cleaner moves in a direction along a generally straight path that is angularly displaced from the direction prior to the reversal.

19. (Original). The pool cleaner of claim 18, wherein the rotational delay clutch includes a clutch plate attached to each of the first and second pair of dual brushes at either end of the pool cleaner, and at least one clutch engagement member in each clutch assembly, whereby the clutch plate attached to the first pair of driven brushes is rotatable through a predetermined number of degrees of angular rotation while the second pair of free brushes remain stationary before engagement of the second clutch plate to initiate synchronous rotation of the second pair and first pair of brushes.

20. (Original). The pool cleaner of claim 18, wherein the rotational delay clutch assembly includes a fixed clutch plate attached to opposing faces of the first and second pair of brushes and at least one intermediate free plate that is mounted for rotation on the axle between the fixed clutch plates, whereby the clutch plate attached to the first pair of driven brushes is rotatable to engage the at least one intermediate free plate and continues said rotation to engage the opposing plate on the second pair of brushes to initiate the synchronous rotation of the second pair of brushes with the first pair of brushes.

21. (Original). The pool cleaner of claim 18, wherein the rotational delay clutch assembly includes an elongated flexible member extending between opposing end members attached to the opposing faces of the brushes on each axle and in winding contact with the axle, whereby reversal of the direction of rotation of the first pair of brushes unwinds the flexible member from the axle then rewinds the flexible member on

the axle in the opposite direction until synchronous rotation of the second pair of brushes is initiated.

22-24. (Cancelled).

25. (New). The pool cleaner of claim 18, further comprising a battery for powering the single reversible drive motor.

26. (New). The pool cleaner of claim 18, further comprising a pump for creating a pump discharge stream having a force vector that is normal to the surface on which the pool cleaner is positioned.

27. (New). The pool cleaner of claim 18, further comprising a signal-generating orientation sensor that is activated when the pool cleaner moves from a generally horizontal orientation to an angle of about 70° or more at either end, for indicating that the pool cleaner is ascending a side wall.